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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,241	10/15/2003	Michael Dennis Krysiak	P/35-20 CIP	7602

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EXAMINER	
PALO, FRANCIS T	

ART UNIT	PAPER NUMBER
3644	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
Office Action Summary	10/686,241	KRYSIAK ET AL.	
	Examiner	**Art Unit**	
	Francis T. Palo	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-22 and 25-62* is/are pending in the application.

4a) Of the above claim(s) *26 and 27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-22,25 and 28-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments / Amendment

Applicant's arguments filed 3/5/08 have been fully considered but they are not persuasive.

The new examiner of record has reviewed the prosecution history of this and the related copending application (10/271,072) and concludes that the arguments directed to the obviousness of combining the teachings of **Hamilton '733** and **Green** (Polyacrylamide) are moot in consideration of **Sears '182** (35 U.S.C. 102(e)); as Sears '182 specifically teaches a method for applying PAM *inter alia* to soil for use in soil conditioning as broadly claimed. In anticipation of the applicant swearing behind the 102(e) date of Sears '182, a 102(b) rejection is also presented for Hamilton '733.

Claim Objections

Claim-12 is objected to because of the following informalities:

"in form" should be changed to "in the form". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim-61 is rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

Evidence that claim-61 fails to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 3/5/08 (EXHIBIT 4).

In that paper, applicant has stated limestone as fertilizer, and this statement indicates that the invention is different from what is defined in the claim because traditional fertilizers are considered as compositions containing nitrogenous, phosphatic and potash fertilizers (such as DAP disclosed in Example-2 [0111] of the instant specification), and not calcium carbonate (limestone) as disclosed in the arguments filed (specifically EXHIBIT 4). Resultantly it is unclear to the examiner what the applicant considers as a fertilizer as recited in claim-61 in light of the specification and the remarks filed 3/5/08.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-7, 10-22, 25 and 28-62 are rejected under 35 U.S.C. 102(e), as being anticipated by **Sears** (US 6,855,182) filed 7/17/02.

Regarding **claim-1**:

1. (Currently Amended) A method of applying a soil stabilizer to soil comprising:

Sears '182 teaches a method for applying soil stabilizer(s) (PAM) to soil as recited in the claim preamble and claim body (see Abstract).

As to:
adding said soil stabilizer to a solid carrier;
applying said solid carrier to said soil;
applying water to said solid carrier;
releasing said soil stabilizer out of said solid carrier into said soil;

Sears teaches in figure-1, a process analogous to the process of paragraphs [0095]-[0106] of the instant invention, whereby PAM (soil stabilizer) is added to pulp fiber (a solid carrier as claimed) in a mixer.

Sears further teaches spreading or tilling into agricultural soil as claimed (col.-3, line-43 therefrom).

Sears further teaches the polymer tends to leach away (from the solid carrier; as into the soil) with water (col.-3, line-55 thereabout), as claimed.

As to:
wherein said solid carrier is made by an agglomeration process, including agitation, pressure, liquid and thermal;

Applicant is respectfully reminded that the instant invention is directed to a method of applying and not to a process of making a solid carrier;

and while the process limitation has been given consideration, it is submitted that since the process does not serve to distinguish the instant method of applying over the prior art, the limitation is not afforded any patentable weight.

Furthermore, Sears is readable on an agglomeration process as consistent with the process described in [0095]-[0106] of the instant invention.

As to:
wherein application rates of said solid carrier to said soil is based on desired amount of said soil stabilizer to be metered to said soil.

Sears teaches, "It is desired to apply soil conditioning polymers to soil so that previously encountered problems with synthetic organic polymers may be avoided while reducing erosion and providing improved soil water control. It is desired to apply soil conditioners and superabsorbent polymers to soil such that they are well distributed throughout the targeted area of soil and readily permeate the soil without leaching through the soil.",[col.-2, lines 25-32 thereabout]. This teaching fairly well renders common sense, the instant limitation as claimed.

Regarding independent **claim-10**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. Further, Sears teaches a process in figure-1 which conforms to the applicant's teaching at [0090].

Regarding independent **claim-20**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. The claim adds, "*said solid carrier comprised of at least about 25% particles in excess of 1mm in diameter*". Sears as previously discussed teaches an analogous process in figure-1 and teaches pellets (solid carrier) range from about 2-7 mm in diameter, which in consideration of the common processes is readable on the claimed sized limitation.

Regarding independent **claim-58**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. The claim adds, "*applying to said soil by conventional application equipment a solid carrier*". Sears teaches, "the pellets (solid carrier) of the invention are easy to spread onto or into the soil because the relatively uniform size of the pellets, which can be custom designed, are conductive for use with agricultural or home lawn equipment already designed for spreading granular soil additives on or into the soil" (col.-3, line-46 therefrom), as claimed.

Regarding independent **claims 59 and 60**:

The discussion above regarding claim-58 is relied upon as being applicable to the instant claims.

Regarding independent **claim-61**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. Sears as discussed above in the rejection of claim-1 teaches the polymer tends to leach away (from the solid carrier; as into the soil) with water (col.-3, line-55 thereabout), as claimed.

Regarding independent **claim-62**:

The discussion above regarding claim-61 is relied upon as being applicable to the instant claim. Sears teaches cellulose pulp fibers like the instant invention.

Regarding **claims 3, 7, 12, 16, 17**:

The claims have been sufficiently discussed above in the rejection of the independent claims.

Regarding **claims 4 and 5**:

Sears teaches the pellets may be spread or tilled into agricultural soil, or may be mixed with prepackaged soil product (col.-7, line-51 thereabout); the application of water as claimed would be inherent to the use of the Sears soil conditioning product.

Regarding **claims 6 and 13**:

Sears teaches the addition of fertilizer (Abstract), as claimed.

Regarding **claim-11**:

Sears teaches up to 20% by weight of a soil conditioner (Abstract), as claimed.

Regarding **claims 15 and 21**:

Applicant in Exhibit 4 filed 3/5/08 discloses tests to demonstrate the ability to granulate limestone and water-soluble PAM into a new Granular Fertilizer (see first paragraph). Since lime is calcium oxide and considered a “traditional fertilizer”, and Sears teaches adding fertilizer, the limitations of the instant claim are met as claimed.

Regarding **claims 14, 18 and 19**:

Sears teaches fibers be prepared from an industrial pulping or bleaching process (col.-4, line-51 thereabout) and that they come from residual process fibers or waste fibers such as those found in pulp mill clarifier sludge (col.-4, line-55 thereabout) as claimed.

Regarding **claims 22 and 25**:

Sears teaches up to 20% by weight of a soil conditioner (Abstract), which can be anionic, neutral or cationic; water-insoluble PAM especially is known for its agglomerating capabilities, which is readable on holding mineral elements in the soil as claimed.

Regarding **claims 28-57**:

Sears teaches the known advantages of soil conditioning in the *Background of the Invention* as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a),

as being unpatentable over **Sears** (US 6,855,182) as applied to claim-1 above,

and further in view of **Hamilton** (US 5,456,733) 1995.

Regarding **claims 8 and 9**:

The discussion above regarding claim-1 is relied upon.

Sears appears to be silent as to the incorporation of seeds and pesticides or herbicides as claimed.

Both Sears and Hamilton teach the application of PAM to the soil via a solid carrier; Hamilton further teaches the addition of seeds and other optional additives to the solid carrier as claimed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to have incorporated seeds and pesticides or herbicides (optional additives consistent with the seed survival) into the solid carrier of Sears as taught by Hamilton and as claimed for the known advantages of those features; as where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)).

Accordingly, since the applicant has submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a),

because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-22 and 28-62 are rejected under 35 U.S.C. 102(b),

as being anticipated by **Hamilton** (US 5,456,733) 1995.

Regarding **claim-1**:

1. (Currently Amended) A method of applying a soil stabilizer to soil comprising:

Hamilton '733 teaches, "an effective mulch serves several functions among which are, **stabilizing the soil** and seed against water and wind erosion; therefore Hamilton teaches a method of applying a soil stabilizer to soil as recited in the preamble.

[see: *Field of Invention*]

As to:
adding said soil stabilizer to a solid carrier;
applying said solid carrier to said soil;
applying water to said solid carrier;
releasing said soil stabilizer out of said solid carrier into said soil;

Hamilton teaches adding PAM in a horizontal mixer to particulate paper (col.-3, line-34 thereabout), while the instant invention teaches in a pin mixer adding PAM to ground wet paper; therefore, Hamilton like the instant invention teach adding a soil stabilizer (PAM) to a solid carrier (paper or resultant paper pellet) as claimed. Further, in the Abstract of Hamilton it is taught that the pellets are spread and impregnated with water; as in applying the solid carrier to the soil and applying water to the solid carrier. Finally, as Hamilton teaches the release of nutrients or seeds and the deposition of polymer particles following swelling and disintegration of the solid carrier, logically, the released PAM would be carried into the soil as well as broadly claimed.

As to:
wherein said solid carrier is made by an agglomeration process, including agitation, pressure, liquid and thermal;

Applicant is respectfully reminded that the instant invention is directed to a method of applying and not to a process of making a solid carrier;
and while the process limitation has been given consideration, it is submitted that since the process does not serve to distinguish the instant method of applying a soil stabilizer to the soil over the prior art, the limitation is not afforded any patentable weight.

Furthermore, Hamilton is readable on an agglomeration process as consistent with the process described in [0095]-[0106] of the instant invention.

As to:
wherein application rates of said solid carrier to said soil is based on desired amount of said soil stabilizer to be metered to said soil.

Hamilton teaches the present invention overcomes the problems associated with pellets which do not swell and disintegrate over time by the addition of a small amount of PAM (col.-3, line-13 therefrom), and that it will be apparent to those skilled in the art that the solid carrier can be produced in various sizes and densities provided that they can be spread conveniently and will swell and disintegrate immediately upon being impregnated with water (col.-5, line-32 therefrom). Further, Hamilton teaches in claim-8 uniformly dispersed 2-10% PAM by weight of the solid carrier, which is within the upper limit of the instant invention. Hamilton therefore must be contemplating application rates as claimed.

Regarding independent **claim-10**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. Further, Sears teaches a process in figure-1 which conforms to the applicant's teaching (agglomeration) at [0090].

Regarding independent **claim-20**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. The claim adds, "*said solid carrier comprised of at least about 25% particles in excess of 1mm in diameter*". Hamilton teaches hammer milled raw waste paper, reduced to less than about ¼ inch (6.1 mm); Hamilton therefore teaches the size limitation as claimed.

Regarding independent **claim-58**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. The claim adds, "*applying to said soil by conventional application equipment a solid carrier*". Hamilton teaches, "capable of application by means of simple spreading devices" (col.-2, line-32 thereabout), as claimed.

Regarding independent **claims 59 and 60**:

The discussion above regarding claim-58 is relied upon as being applicable to the instant claims.

Regarding independent **claim-61**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. The claim adds, "*leaching*" (previously "releasing") *the soil stabilizer out of the solid carrier into the soil*", and "*wherein the solid carrier consists essentially of a fertilizer*". Hamilton teaches that upon impregnation with applied water or rain, the solid carrier containing PAM swells and disintegrates; it is submitted that once impregnated by water the soil stabilizer is capable of leaching out as the polymer would require some time to absorb water and thus be in a condition for some duration to be leached out or washed out of the carrier as claimed.

Regarding independent **claim-62**:

The discussion above regarding claim-1 is relied upon as being applicable to the instant claim. The claim adds, "*leaching*" (previously "releasing") *the soil stabilizer out of the solid carrier into the soil*", and "*wherein the solid carrier comprises a fibrous material".* Hamilton teaches that upon impregnation with applied water or rain, the solid carrier containing PAM swells and disintegrates; it is submitted that once impregnated by water the soil stabilizer is capable of leaching out as the polymer would require some time to absorb water and thus be in a condition for some duration to be leached out or washed out of the carrier by rain or irrigation as claimed. Further, Hamilton teaches hammer milled waste paper which is considered a fibrous material as claimed.

Regarding **claim-3**:

The claim limitation has been sufficiently discussed in the rejection of independent claim-58 above.

Regarding **claims 4 and 5**:

The claim limitations have been sufficiently discussed in the rejection of independent claim-62 above.

Regarding **claims 6, 8, 9, 13, 14, 15 and 21**:

Hamilton teaches optionally, other nutrients, seeds, dyes and/or optional additives (col.-3, line-39 thereabout). It is submitted that with the incorporation of seed, optional additives such as pesticides or herbicides would be consistent with the intent of using seed.

Regarding **claim-7**:

The claim limitation has been sufficiently discussed in the rejection of independent claim-62 above.

Regarding **claim-11**:

Hamilton teaches up to about 10% swelling agent (col.-2, line-61 thereabout) by weight which is readable on less than 50% as claimed.

Regarding **claim-12**:

Hamilton teaches a pellet as claimed.

Regarding **claims 16, 17 and 22:**

Hamilton teaches PAM, which is capable of holding mineral elements in the soil as claimed.

Regarding **claims 18 and 19:**

Hamilton teaches producing mulch pellets which consist of particulate waste paper.

Regarding **claims 28-57**:

Hamilton in conjunction with the use of PAM is capable of the intended use limitations as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 16 and 25 are rejected under 35 U.S.C. 103(a),

as being unpatentable over **Hamilton** (US 5,456,733) 1995,

in view of **Green** (Sustaining the Global Farm).

Regarding **claims 1 and 16**:

The discussion above regarding claims 1 and 16 in view of Hamilton are relied upon.

Regarding **claim-25**:

The discussion above regarding claims 1 and 16 is relied upon.

It has been previously submitted by the prior examiner of record and argued by the applicants the obviousness of substituting the anionic PAM of Green for the water insoluble PAM of Hamilton.

The new examiner of record respectfully maintains that it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have made that substitution, as where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). Ex Parte Smith, 83 USPQ.2d 1509, 1518-19 (BPAI, 2007) (citing KSR v. Teleflex, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)).

Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Accordingly, the rejection of claim-25 as submitted in the office action mailed 9/5/07 is maintained and incorporated herein by reference only, as the rejection is a matter of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis T. Palo whose telephone number is 571-272-6907. The examiner can normally be reached on M-Tu.,Th.-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mansen can be reached on 571-272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Francis T. Palo/
Primary Examiner
Art Unit 3644